REMARKS

Applicants wish to thank the Examiner for the attention accorded to the instant

application, and respectfully request reconsideration of the application in view of the following

amendments and remarks.

Formal Matters

Claims 1, 2, 4, 5, 7-10, 12, 13, 15, 16 and 18-21 are currently pending in the Application,

with claims 1, 4, 8, 12, 15 and 19 being independent claims. These independent claims are

amended herein to more clearly recite the invention. In particular, the claims are amended to

recite that the parallel modification is structure modification <u>including new branch generation for</u>

<u>a particular one</u> of nodes corresponding to the words put in a parallel relationship in the sentence

structure <u>so that the particular one is connected to each node connected by a branch from the</u>

<u>node put in the parallel relationship for the particular one</u>. Support for this amendment can be

found at least in Fig. 18 and page 24, lines 12-15 of the specification. Care has been taken to

ensure no new matter is being entered.

Rejection of Claims Under 35 U.S.C. §103

Claims 1, 2, 4, 5, 7-10, 12, 13, 15, 16 and 18-21 are rejected under 35 U.S.C. § 103(a) as

unpatentable over Kumai, U.S. Patent Application Publication No. 2004/0260979 in view of

Akers et al., U.S. Patent No. 6,278,967 (hereinafter "Akers") and further in view of Nagao et al.,

U.S. Patent No. 5,424,947 (hereinafter "Nagao"). These rejections should be withdrawn based

on the comments and remarks herein.

Independent claims 1 and 12, as amended herein, recite a text mining apparatus that

comprises means for generating a sentence structure from an input document, means for

generating a similar structure of patterns having a similar meaning of a partial structure of the

sentence structure by performing predetermined conversion operation, including at least change

13

in connection of branches in a graph structure, of the partial structure, and means for determining the patterns having the similar meaning as the identical pattern and detecting the pattern. Independent claims 4, 8, 15 and 19, as amended herein, recite similar subject matter. The sentence structure represents a dependency among words (see, Figs. 16A-16C and page 2, lines 10-12 of the specification). The means for generating the similar structure comprises means for performing parallel modification (see, Fig. 18) of sentence structure, means for generating a partial structure (see, Fig. 19) of the sentence structure, means for performing non-directional branching (Figs. 20A-20E) of a directional branch of the sentence structure and/or partial structure, means for replacing a synonym (see, Fig. 22) in the sentence structure and/or partial structure by referring to a synonym dictionary, and means for performing non-ordering (see, Fig. 22) of ordering trees of the sentence structure and/or partial structure. The parallel modification is structure modification including new branch generation for a particular one of nodes corresponding to the words put in a parallel relationship in the sentence structure so that the particular one is connected to each node connected by a branch from the node put in the parallel relationship for the particular one (see, Fig. 18 and page 24, lines 12-15 of the specification). The means for generating the similar structure uses the similar structures as an equivalent class of the partial structure of the sentence structure.

Specifically speaking, the change in connection of branches in "the parallel modification" carries out the new branch generation. For example, in a case where a node A and a node B are put into the parallel relationship, a branch of "B-C" for the node B put in the parallel relationship for the node A is generated if there is a branch of "A-C", and a branch of "A-D" for the node A put in the parallel relationship for the node B is generated if there is a branch of "B-D".

The parallel modification illustrated in Fig. 18 cancels a branch of "CHEAP-FAST" for connecting the nodes put in the parallel relationship after carrying out the above-mentioned new

14

branch generation, i.e. generation of a new branch of "FAST-TYPE A OF VEHICLE" following a branch of "CHEAP-TYPE A OF VEHICLE" because the node of "CHEAP" and the node of "FAST" are put into the parallel relationship.

Applicants appreciate that the Examiner acknowledges that Kumai fails to teach parallel modification (Office Action, pages 3-4), and that Akers fails to teach parallel modification (Office Action, page 8), and that the parallel modification recited in the claims of the present application is clearly different from structural conversions of Akers.

The Examiner interprets "parallel modification" as preparation of a new sentence structure having a relationship between nodes similar to that of an original sentence structure (Nagao, col. 9, lines 21-38) in a form different from that of the present invention. Specifically, the Examiner asserts that parallel modification can be interpreted as "composing another modified structure of a sentence with equal relationship to the original sentence while preserving meaning between all nodes" (Office Action, page 9). However, the modification disclosed by Nagao does not teach or suggest including new branch generation for a particular one of nodes corresponding to the words put in a parallel relationship in the sentence structure so that the particular one is connected to each node connected by a branch from the node put in the parallel relationship for the particular node, as recited in the independent claims of the present invention as amended herein. In other words, the structure created by the "parallel modification" of the present invention is different from the structure created by Nagao.

It has been held by the courts that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). See also MPEP § 2143.03. As illustrated above, the hypothetical combination of Kumai and Akers and Nagao, in any combination, does not teach or suggest parallel modification is structure modification including new branch generation for a

15

particular one of nodes corresponding to the words put in a parallel relationship in the sentence structure so that the particular one is connected to each node connected by a branch from the node put in the parallel relationship for the particular one, so that *prima facie* obviousness has not been established. Consequently, independent claims 1, 4, 8, 12, 15 and 19 patentably distinguish over the art of record in the application. Claim 2 is dependent from Claim 1, Claims 5, 7 are dependent from Claim 4, Claims 9-10 are dependent from Claim 8, Claim 13 is depended from Claim 12, Claim 16 and 18 are depended from Claim 15, and Claims 20-21 are dependent from Claim 19. Therefore, dependent Claims 2, 5, 7, 9-10, 13, 16, 18, 20 and 21 patentably distinguish over the art of record in the application for at least the reasons that their base claims patentably distinguish over the art of record in the application.

Hence, withdrawal of this rejection is respectfully requested.

Conclusion

For the reasons set out above, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested. Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact the undersigned representative at the telephone number below.

Respectfully submitted,

Katherine R. Vieyra
Registration No: 47,155

Scully, Scott, Murphy & Presser, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
516-742-4343

KRV/ch